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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/756,555

01/13/2004

Paul C. Belvedere

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EXAMINER

CHEUNG, VICTOR

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

10/24/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/756,555

Applicant(s)

BELVEDERE, PAUL C.

Examiner

Victor Cheung

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Amendments and arguments were filed 08/09/2007. Claims 1,6, and 10 are amended.

Claims 1-10 are pending.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayka (US Patent No. 5,688,118) in view of Hon (US Patent No. 4,360,345) and Neustadter (US Patent No. 4,902,232).

Re Claim 1: Hayka discloses a personal dental education kit for teaching new and advanced dental preparation and restorative procedures comprising audiovisual demonstration materials showing an actual dentition problem, procedures for preparation of the dentition and procedures for the dentition restoration (Col. 12, Lines 10-17, 63-64) and a dental model of the problem dentition for the preparation and restorative procedures (Fig. 3). Hayka additionally teaches the education kit including dental instruments for creating cavities (Col. 8, Lines 37-45) and that the kit comprises selectable parameters for simulating cavity fillings (Col. 12, Table 1).

However, Hayka does not specifically disclose the kit including a hard copy of printed instructions on how to use the kit and steps to accomplish discipline in the advanced dental procedure, a dental filling material for the restorative procedure on the prepared dentition, and dental instruments for placement control and shaping of the dental filling material in the restorative procedure.

Hon teaches an interactive medical education kit for teaching medical procedures, comprising a printer to print out directions (Col. 7, Lines 61-63).

Neustadter teaches a dental training model that dental students may perform dental skills such as drilling teeth and filling cavities (Col. 1, Lines 23-24). In a system where students are performing the skill of filling cavities of a dental training model, it is inherent of the system to comprise dental filling material and instruments for filling the cavity.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the demonstration materials in the form of hard copy instructions in order to provide instructions for a student. It would have been obvious to include filling material and instruments for the restorative dental procedures so that the student who is practicing on the dental model can practice filling the cavity as well as preparing the cavity in Hayka. It would have been obvious to combine the known methods of Hayka and Neustadter to provide the predictable result of a dental model for teaching both preparing and filling cavities.

Regarding the amendments to claims 1 and 6 of the kit being used in an at-home environment or to permit the participant to use the kit in a private setting, these limitations are an intended use of the apparatuses, and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior

Art Unit: 3714

art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. This feature is discussed below in the response to arguments.

Re Claims 2 and 6: Hayka, as modified by Hon and Neustadter, teach the limitations of claim 1 as discussed above.

Hayka additionally discloses the apparatus further comprising a self-evaluation test (Col. 13, lines 5-7). Hayka does not specifically disclose that the test is for fulfilling licensure and academic standing.

However, it has been discussed in a previous office action, dated 04/04/2006, that the feature of providing a test for the purpose of licensure and academic standing is old and well known in the art. The official notice of the well known feature was not traversed and is taken to be admitted prior art.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a test for the purpose of licensure and academic standing in order to enforce minimum standards required in medical procedures.

Re Claims 3 and 7: Hayka additionally discloses the audiovisual demonstration materials are pictures, illustrations, and audio (Col. 12, Lines 10-17, 63-65).

Re Claims 4-5 and 8-9: Hayka additionally discloses a second model of prepared dentition and a third model of restored dentition (Col. 12, Lines 10-30, 61-63)..

Art Unit: 3714

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayka (US Patent No. 5,688,118) in view of Hon (US Patent No. 4,360,345), Neustadter (US Patent No. 4,902,232), and Neill (US Patent No. 3,886,661).

Re Claim 10: Hayka, as modified by Hon and Neustadter, teach the personal dental education kit as discussed above and described in the claim, lines 1-4.

Hayka discloses a method comprising intermittently watching audiovisual materials in steps (Col. 12, Lines 63-65), performing the preparation procedure step on the dental model (Col. 12, Lines 54-56), and taking a self evaluation test (Col. 13, Lines 4-7). (See also Col. 12, Line 10-Col. 13, Line 15).

However, Hayka does not specifically disclose reviewing printed instructions or performing a restoration procedure step on the prepared dental model.

Hon teaches printing out instructions for the student (Col. 7, Lines 61-63).

Neustadter teaches performing the restoration procedure on the prepared dental model (Col. 1, Lines 23-24).

Neill teaches that dental training and instruction is performed at home (Col. 2, Lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to review printed instructions so that the user is correctly using the dental kit and correctly performing the procedures, and to perform the restoration procedure step on the prepared dental model, thereby providing the user practice and procedural

techniques in the restorative procedure. It would have been obvious to perform the methods in a private setting, thereby allowing the participant to proceed at their own pace.

### ***Response to Arguments***

5. Applicant's arguments filed 8/9/2007 have been fully considered but they are not persuasive.

Applicant argued, on page 7, that the "fact that Hayka's system does not disclose the claimed elements shows that these elements are not necessarily inherent in a system such as Neustadter." The Examiner relied upon the reasoning of inherency because of the fact that the elements were not explicitly listed. Additionally, the inherency was not relied on from the Hayka reference but from the Neustadter reference. As disclosed and discussed in Neustadter above, a dental training model allows dental students to perform dental skills such as drilling teeth and filling cavities. The Examiner maintains the reasoning that for a student to perform the dental skill of filling a cavity, it necessarily flows that filling materials be available for filling the cavity.

Applicant also argued, on page 7, that "the prior art cited in the instant Office Action does not disclose, suggest, or teach all of the elements of the currently amended independent claims," particularly citing the compressed gas unit of Hayka. It is unclear how the compressed gas unit makes the kit of materials not able to be portable or inoperable in an at-home setting. As known to one of ordinary skill in the art, a plurality of methods of providing a compressed gas unit, including piping in gas into a building, providing gas

Art Unit: 3714

through tanks, providing gas through canisters, etc., each of which do not preclude the dental kit from being portable. The invention of Hayka is portable.

Applicant argued, on pages 8 and 9, that the Examiner has not provided a reason for making the combinations. As disclosed above and also in the previous Office Actions, reasons are provided for the combined limitations of Neustadter and Hayka. For example in claim 1, providing instructions to the student and allowing the student to practice an alternate dental procedure are reasons for combining the references.

Applicant argued, on pages 9 and 10, that “the Office Action has not properly applied the test of *Graham v. John Deere Co.*” and that “the Office Action has made no findings of the level of ordinary skill in the art and is thus deficient.” Examiner respectfully disagrees. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Taking the rejection of claim 1 as an example, the *Graham v. Deere* inquiries are applied in the following manner/paragraphs:

1. Paragraph beginning “Hayka discloses...”
2. Paragraph beginning “However, Hayka does not specifically disclose...”
3. Paragraphs beginning “Hon teaches...” and “Neustadter teaches...”
4. Paragraph beginning “It would have been obvious...”



Art Unit: 3714

The Graham v. Deere test was applied in that manner, and thus the Office Action had made finding of the level of ordinary skill in the art and it is thus not deficient.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lee et al. (USPN 6,988,894) discloses a dental training device model.
- Brattesani (USPN 6,926,532) discloses a device for dental education including cavity drilling and filling.
- Fabricant (USPN 4,231,181) discloses a dental toy including a model and tools and materials for drilling and filling cavities.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action.

Art Unit: 3714

In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

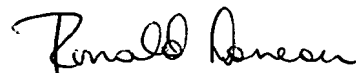
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Cheung whose telephone number is (571) 270-1349.

The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VC  
Victor Cheung  
October 16, 2007

  
RONALD LANEAU  
PRIOR EXAMINER

10/23/07